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EPAct Light Duty Exhaust Fuel Effects Test Program

Cost and timing feedback

from SwRI

Program Costs

OPTION	DESCRIPTION	FUELS	VEHICLES	COST
A	Base EPA Program + 3 GHG fuels	18 + 3	19	$3.9 M
B	EPA / DOE collaborative program + 4 GHG fuels	21 + 4	21	$5.9 M

- Our proposal is to first test 3 or 4 "real world" ethanol blends on all vehicles to generate data for GHG rule analysis*
  - **Fuels:** E0, E10, E15+   **Toxics:** Yes   **Temps:** 50° and 75°F
- Option B hinges on DOE involvement (DOE kicks in $2 Million)
- PM speciation (included above and proposed on 3/4 GHG "real world" fuels) using SwRI proposed methods, we feel, may result in **qualitative results only.** We're working to develop methods for this part of the program which will greatly improve the data quality. We would also like to explore the option of doing this PM work separately at NVFEL as a parallel program

*Option A and B fuels are "parametric" fuels – not necessarily average real world fuels. We would add 3 "real world" fuels to illustrate the effects of ethanol for GHG rule preliminary data (same fuels to be used for PM speciation)

Project Timing

- Testing estimated to begin in late March 2008
  - Most of that time is waiting for fuels (need to decide ASAP which option to select)
  - Time also required for test cell upgrades (for 50°F tests) and additional fuel drum storage capacity
- Ability to provide data for GHG rule
  - We would add 3 or 4 in-use fuels (E0, E10, E15+) to each option and test these fuels first for a preliminary dataset
  - Testing may start earlier since these fuels are more readily available
  - SwRI can run 27 tests/week at 75°F (18 at 50°F)
  - At this rate (plus 30% margin of safety) and starting 4/1/08:
    - Option A: 19 vehicles * 3 GHG fuels =**14 weeks (e.g. 7/8/08)**
    - Option B: 21 vehicles * 4 GHG fuels =**21 weeks (e.g. 8/26/08)**

Take Away Points

- We need to pick fuels (Option A vs. B) ASAP to meet the March or April 2008 start date
- DOE involvement is necessary for any data on high level ethanol blends (anything >E10)
- We need the "OK" to add 3 or 4 fuels for GHG rule data generation so SwRI can begin recruiting vehicles
- We feel their "non-VOC" PM speciation proposal is inadequate and are in the process of designing our own collection methods. It is questionable that this will be ready by March 08 and might need to be done as an addendum to the program (or done separately at our own lab)